

FIG. 1

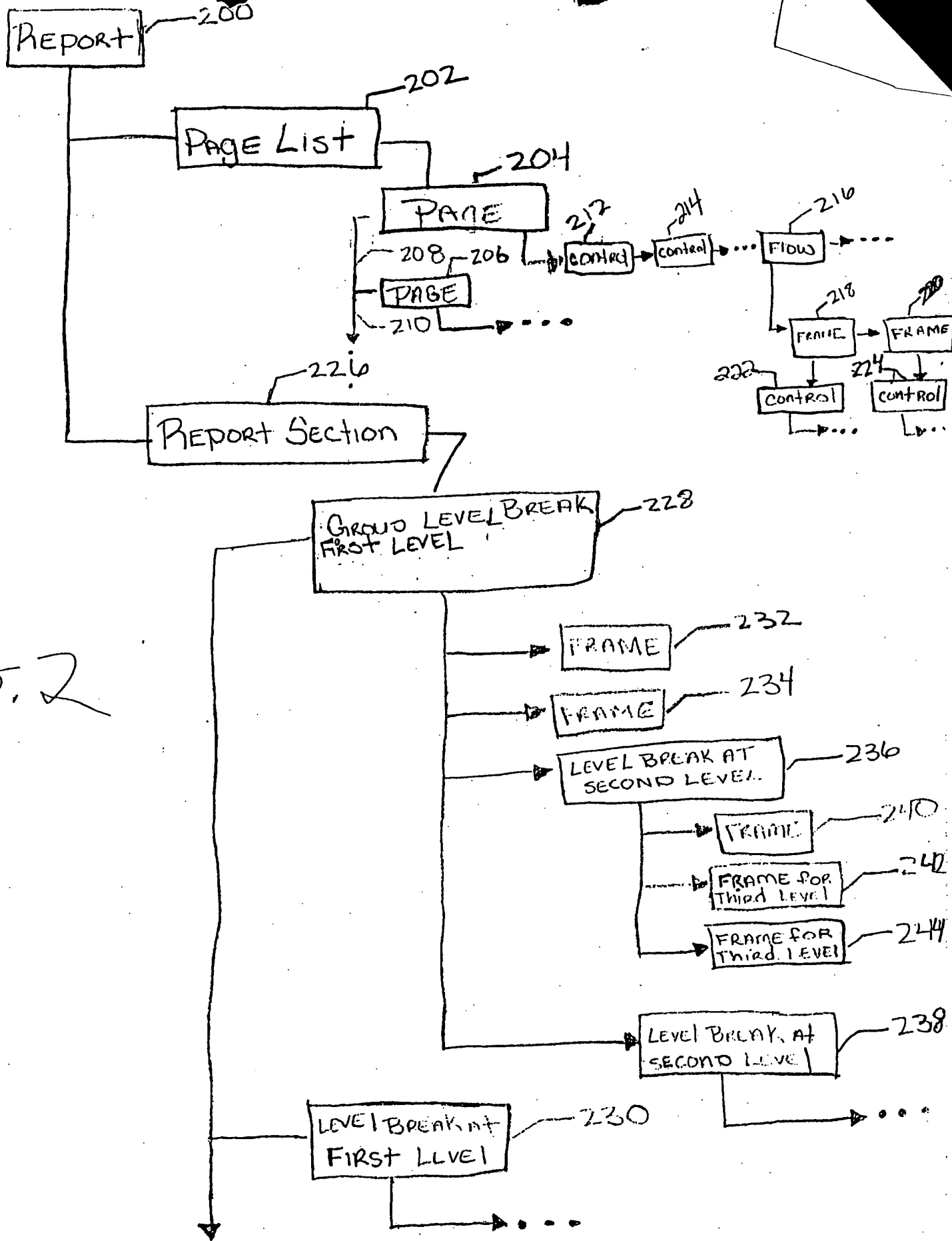


FIG. 2

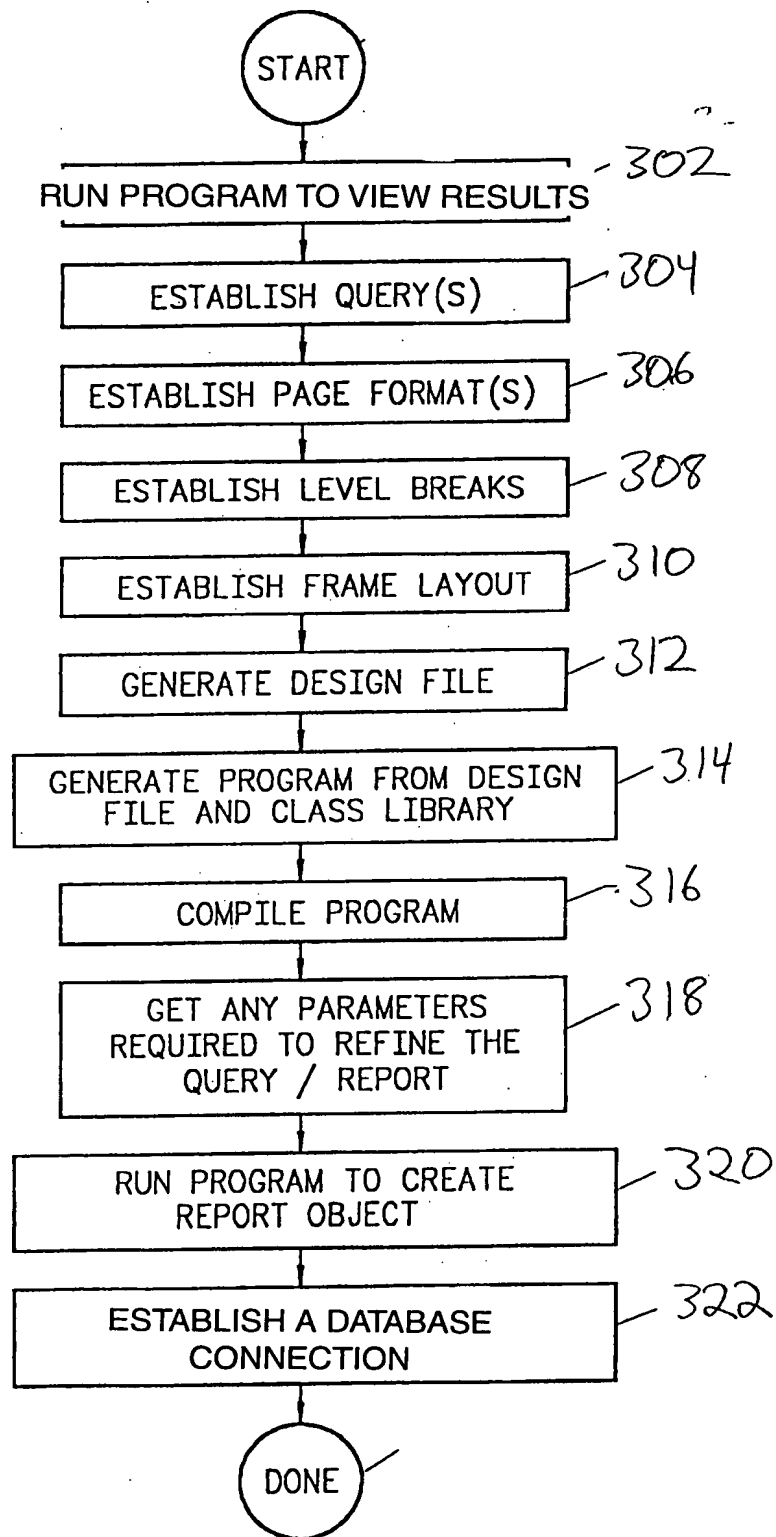


FIG.3

402 }

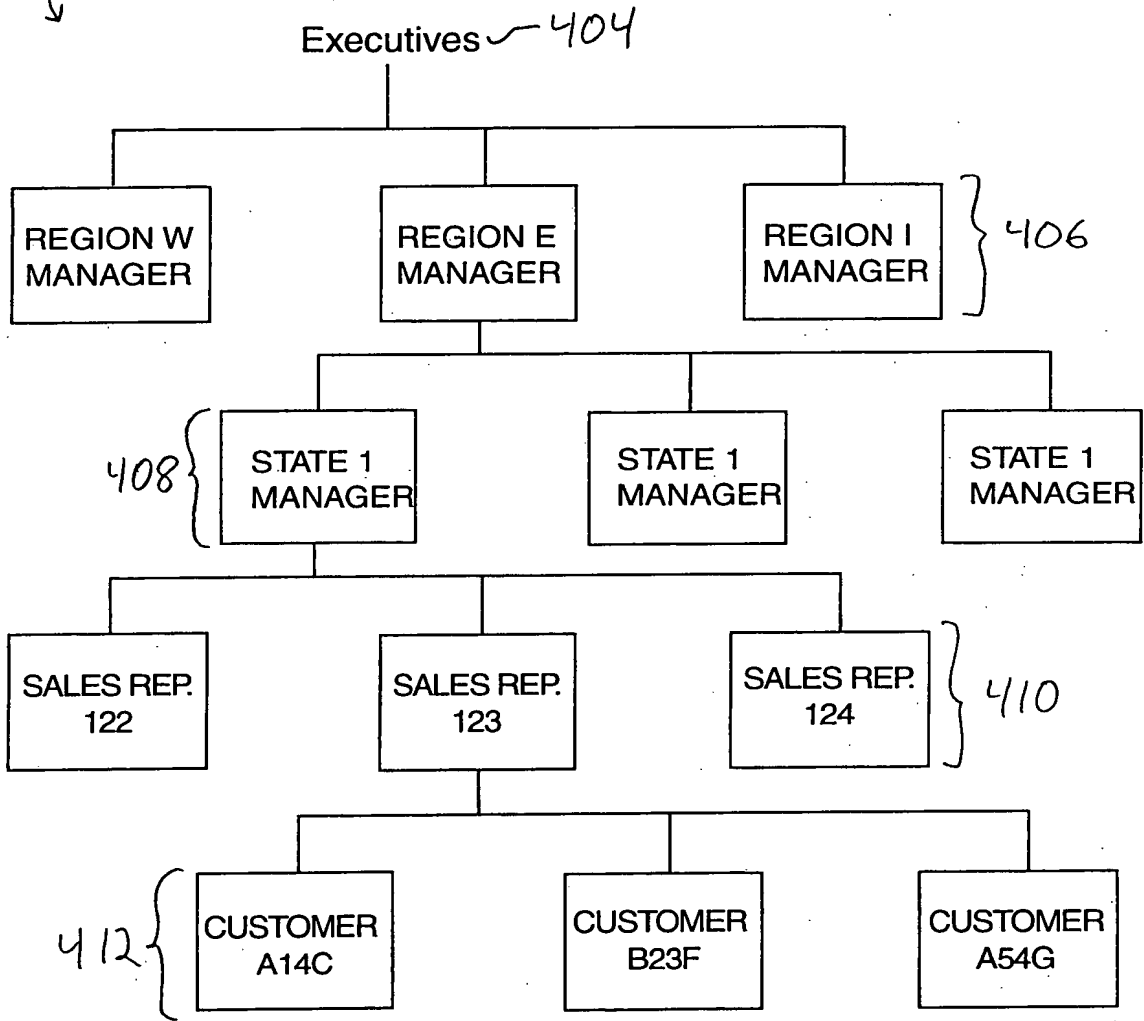


FIG. 4A

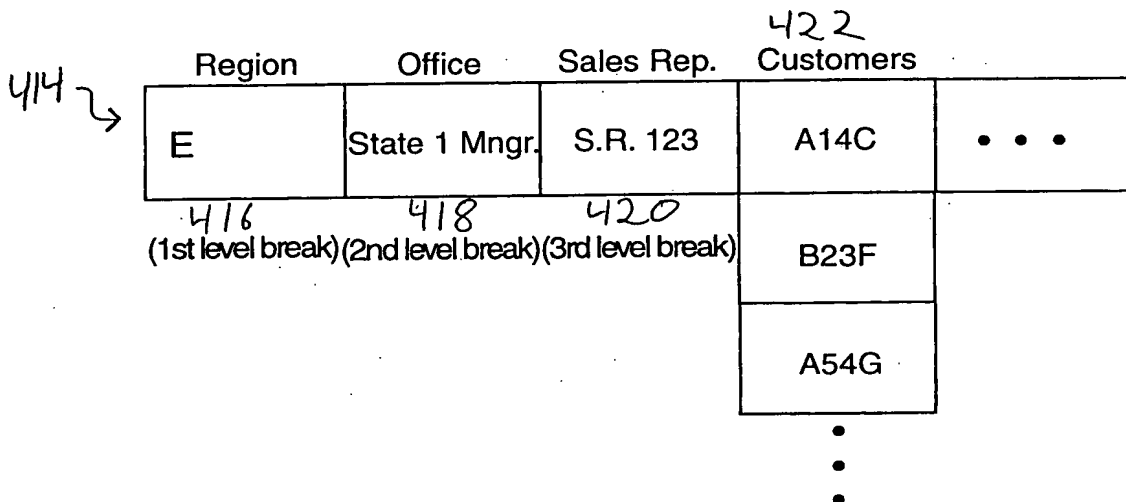


FIG. 4B

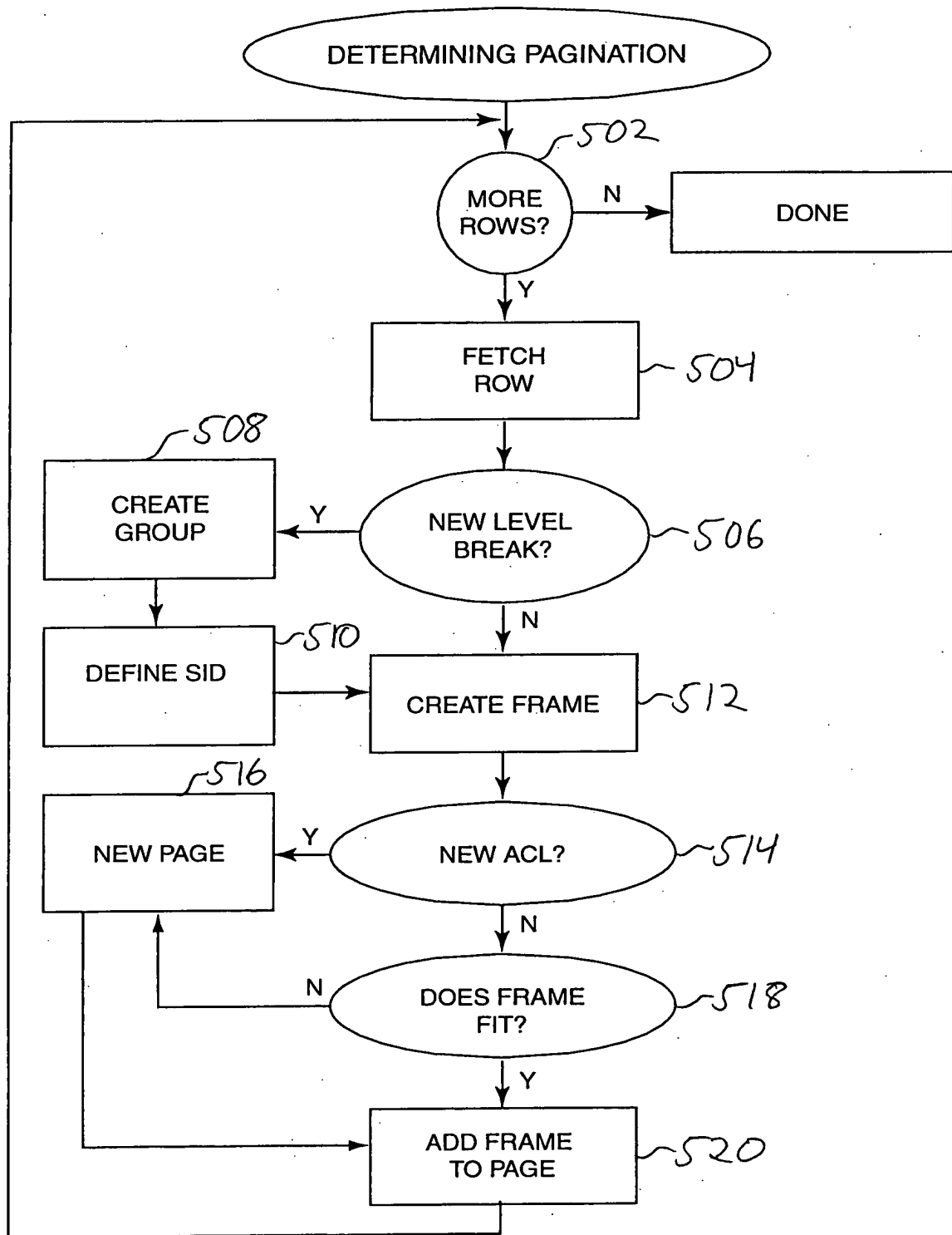


FIG. 5

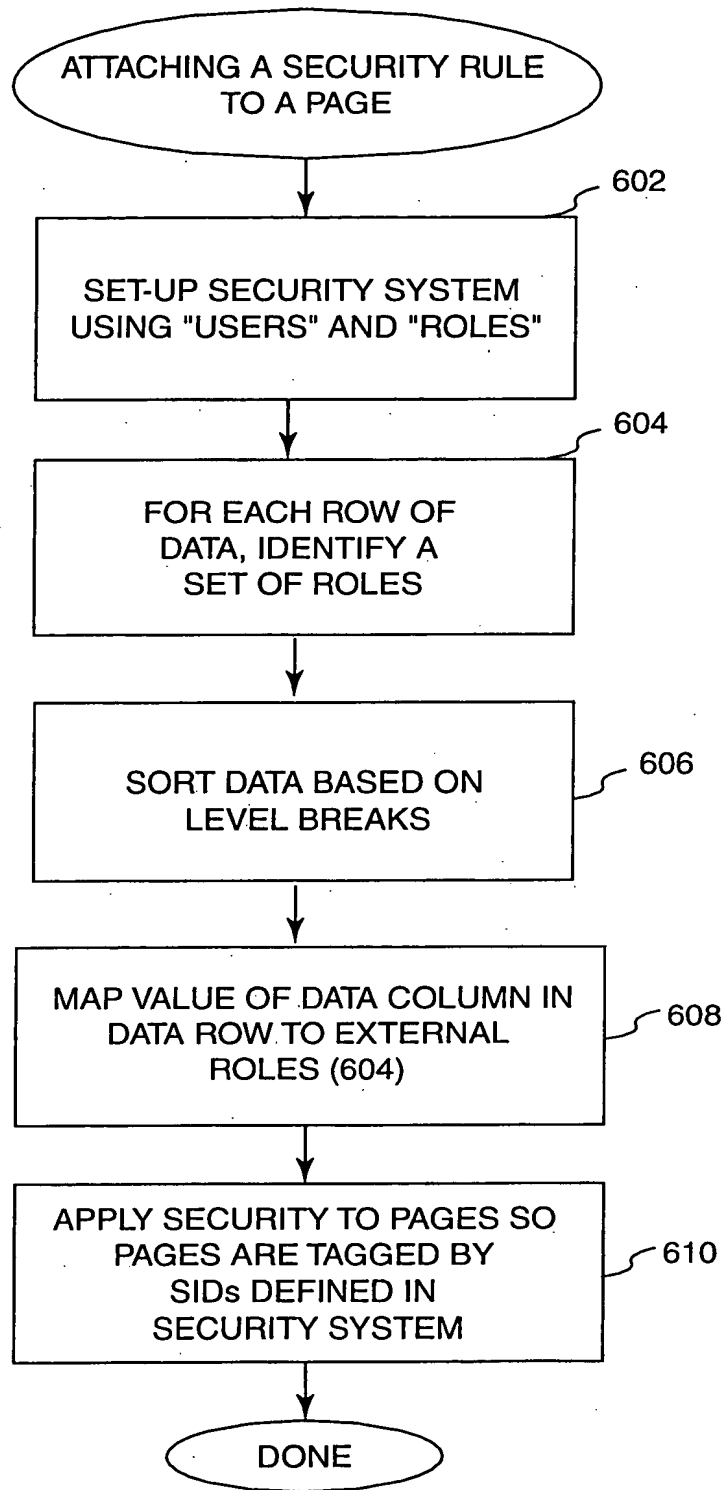


FIG. 6

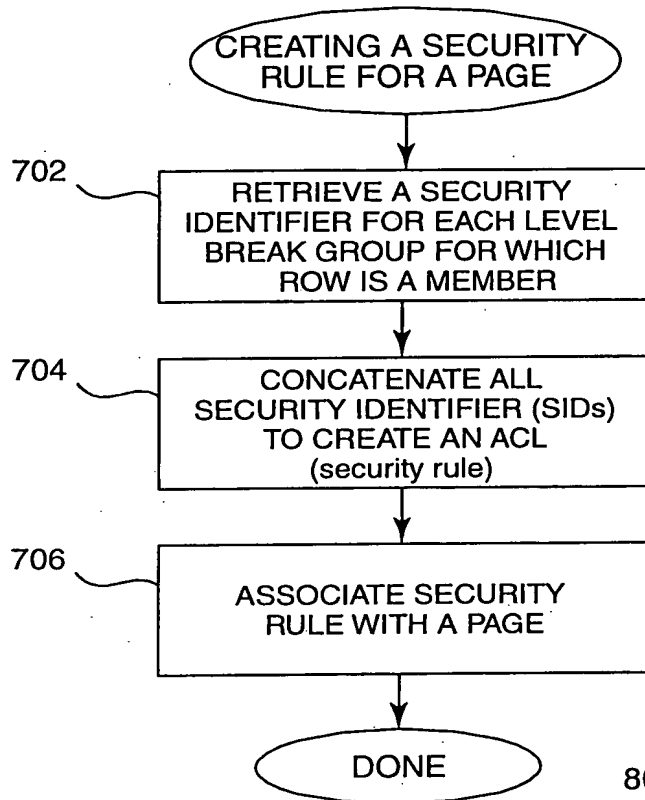


FIG. 7

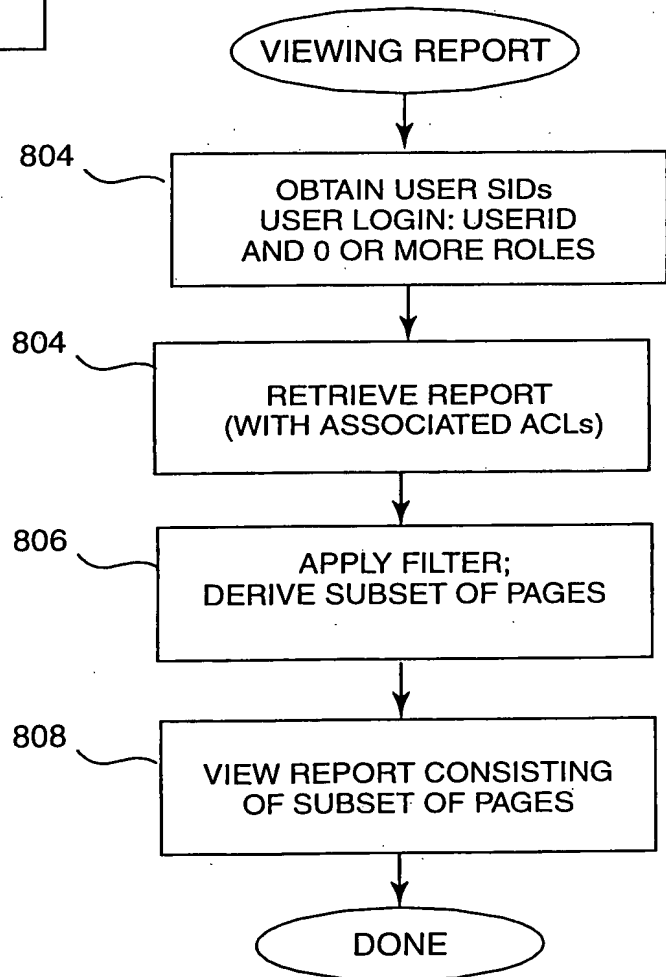


FIG. 8

FIG. 9B

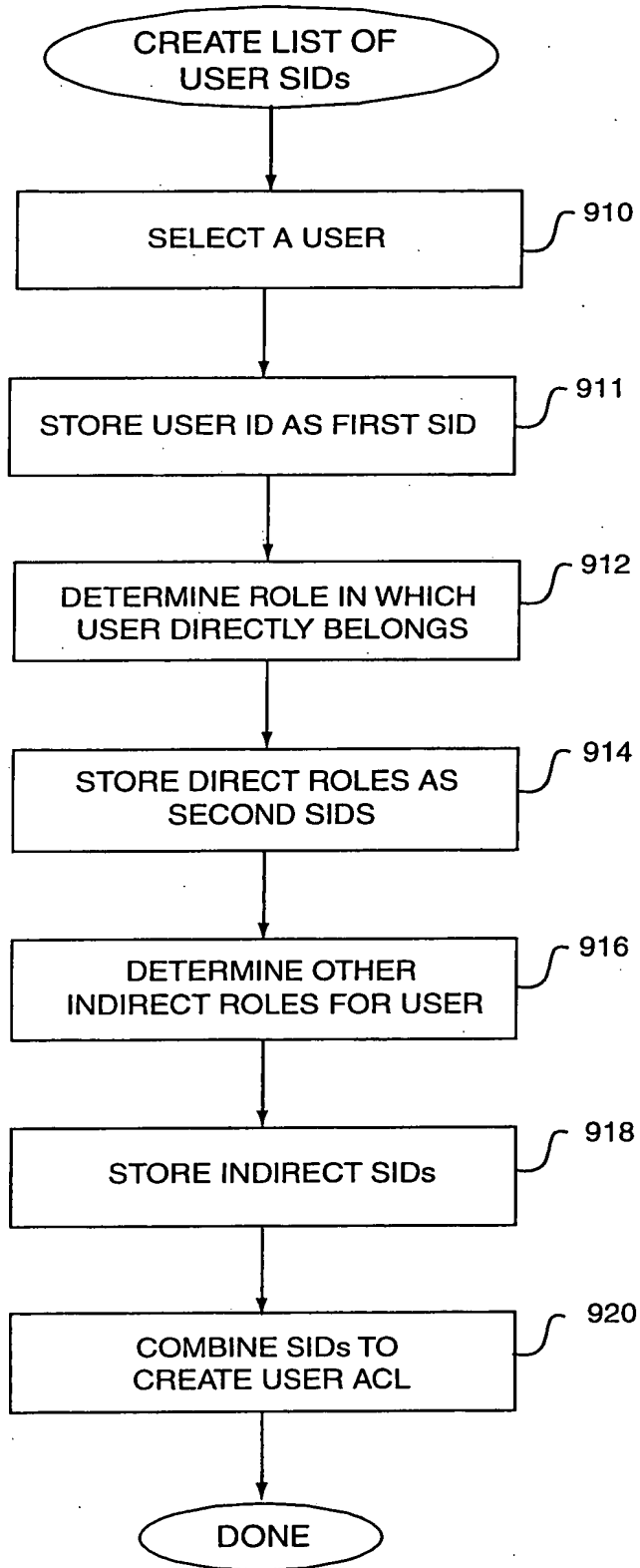


FIG. 9A

900

902 USER AND ROLE	904 "BELONGS TO"
Role 1	Role 2
FJones	Role 2
Role 2	Role 3; Role 4
UserID5	Role 4
Role 3	[NULL]
Role 4	[NULL]
⋮	⋮

906

FIG. 10

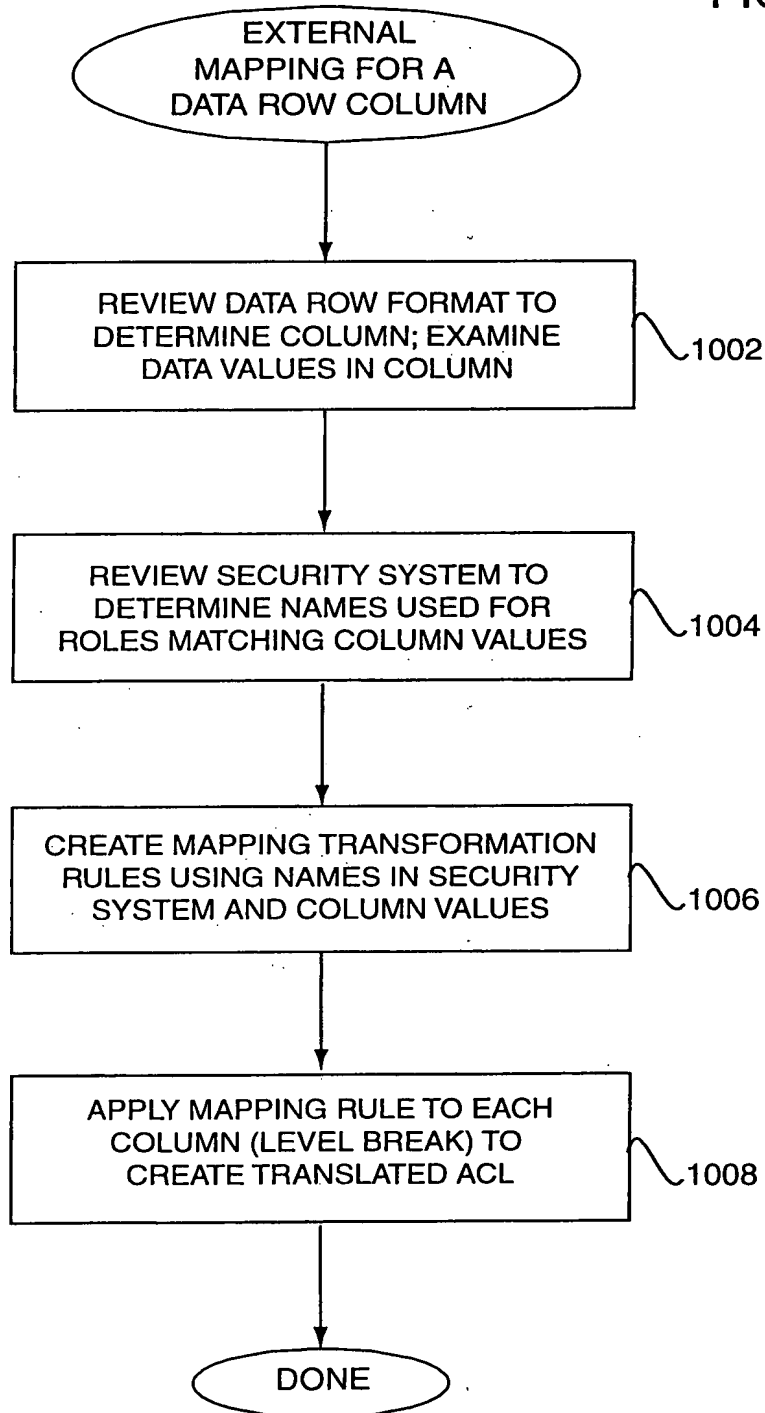


FIG. 11A

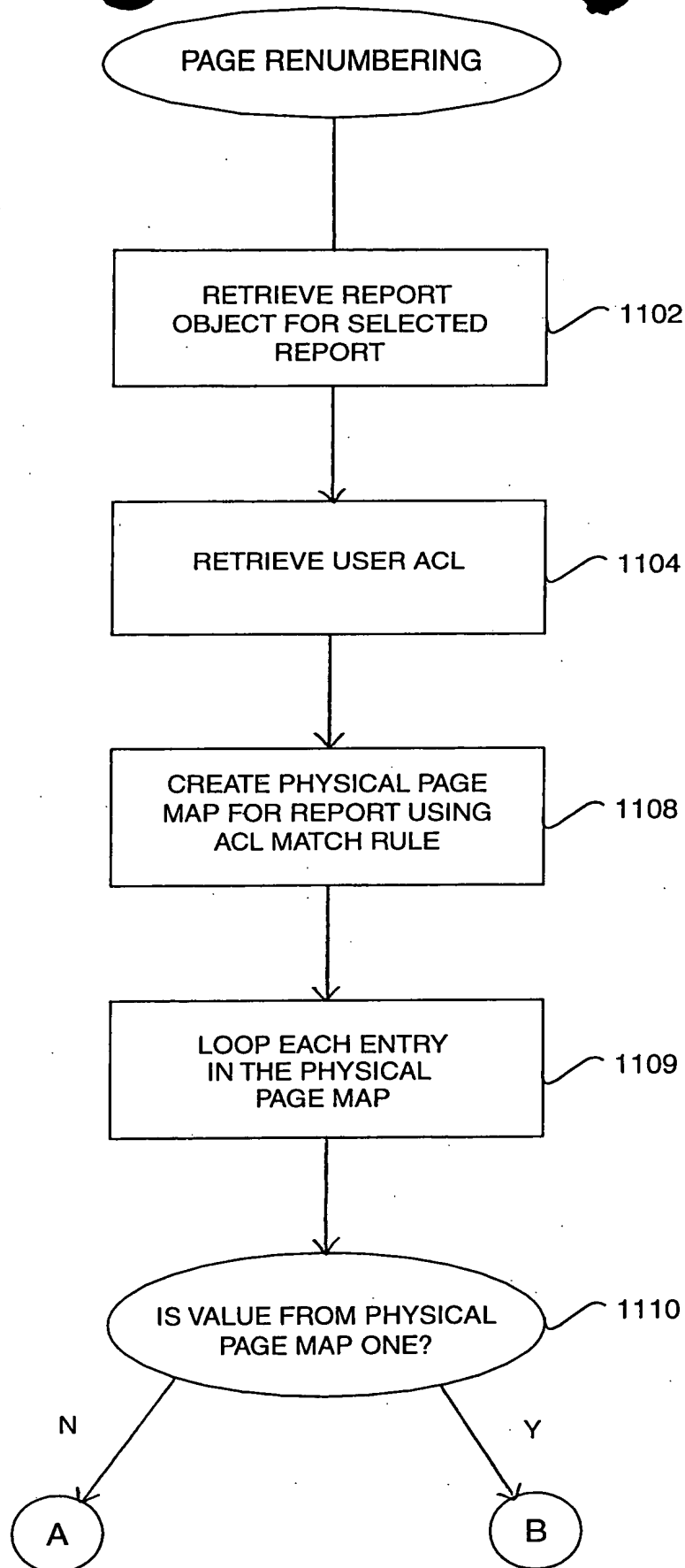
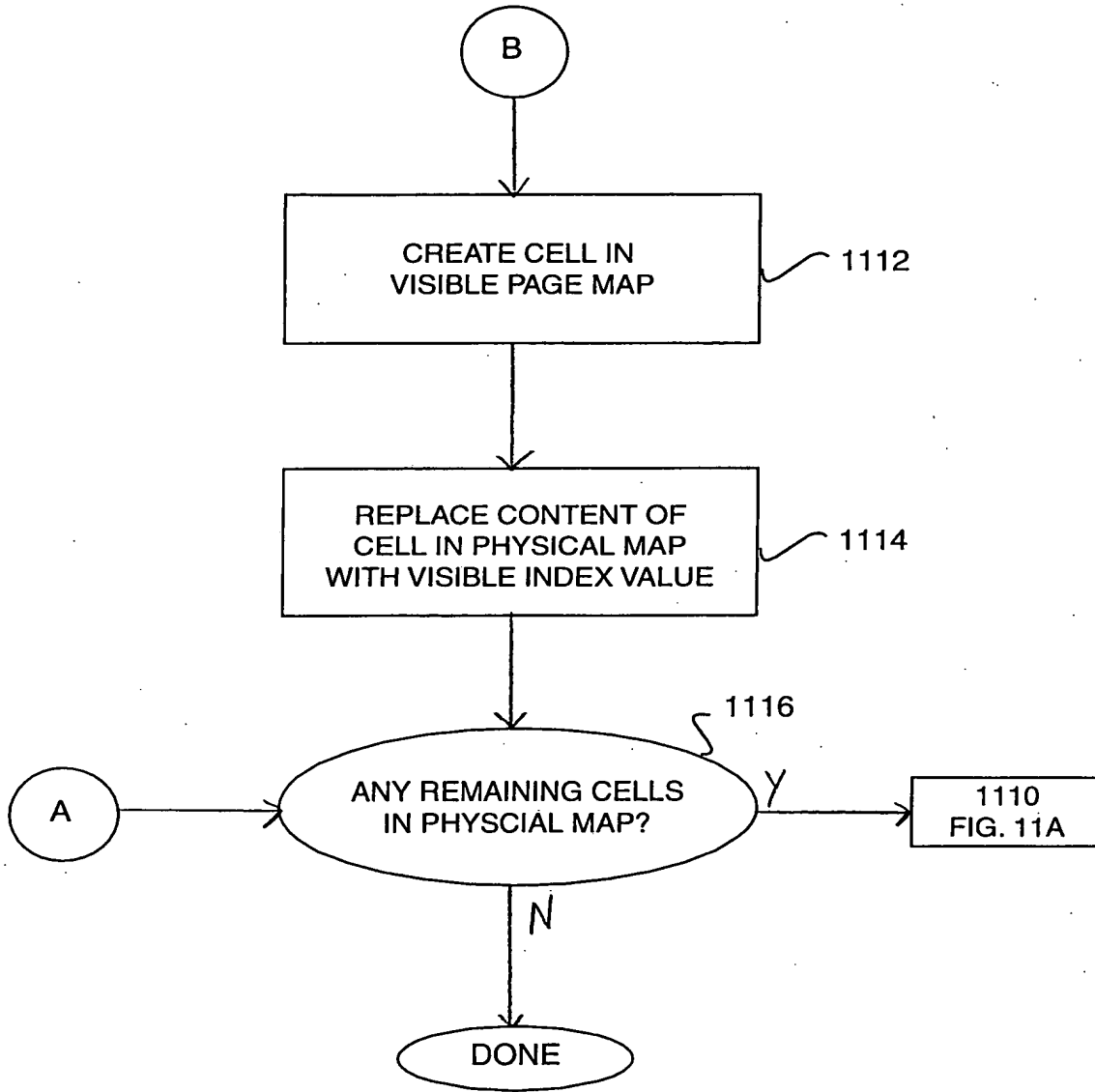


FIG. 11B



←

5

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↑
↑

12

22

1

三

15

1

□

$$15 (\leq n)$$

三

11

1

1126

FI 6.11C

1202
↓

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1214 ~ East	1218 ~ New York	S123	ABC Co.	2
			XYZ Co.	5
			DEF Co.	8
		S124	GHI Co.	13
			LMN Co.	18
			PQR Co.	23
	1220 ~ Connecticut	S125	ST Co.	31
			UV Co.	37
		S126		45
1216 ~ Central				108

FIG. 12A

FIG. 12B

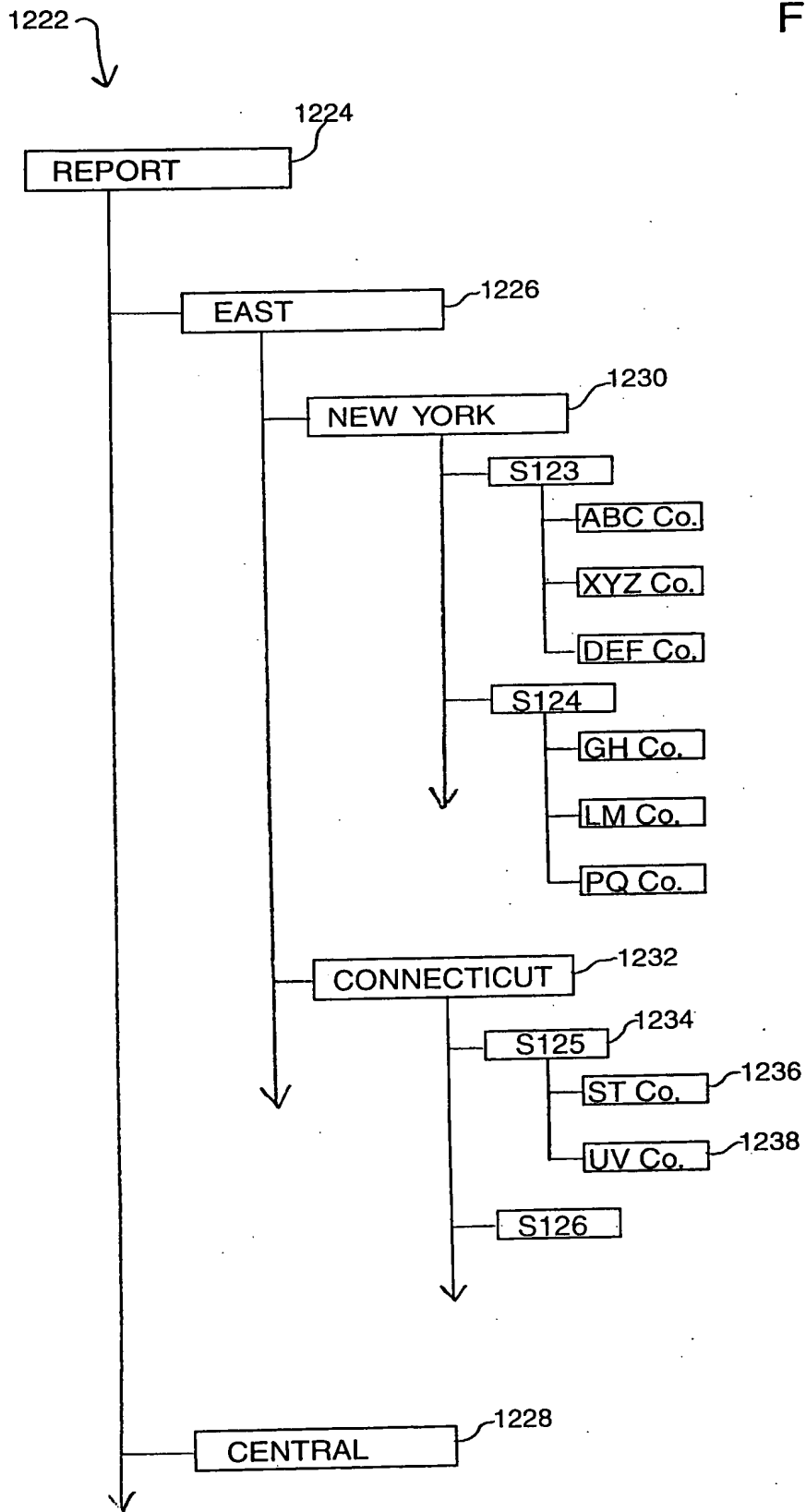
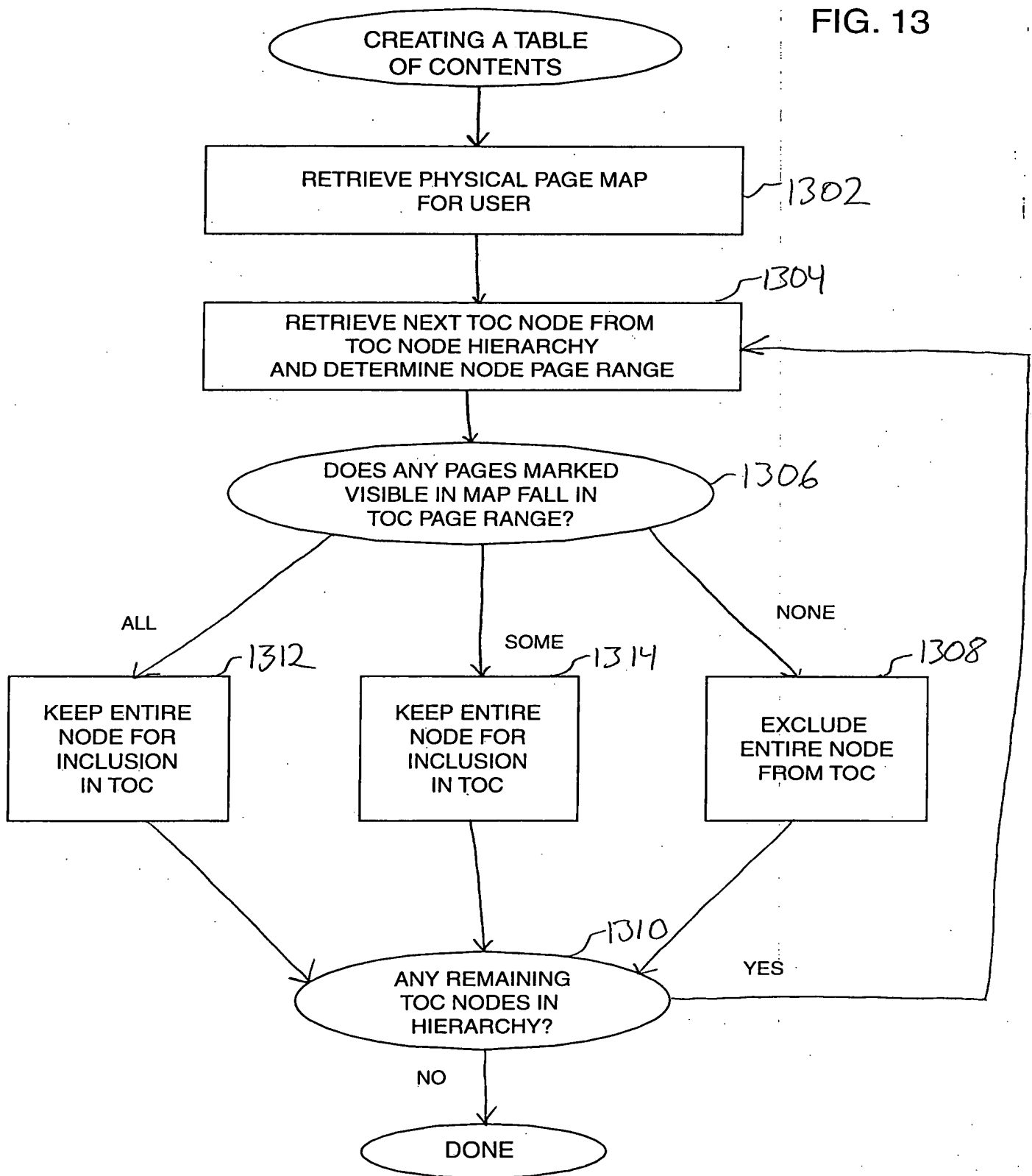


FIG. 13



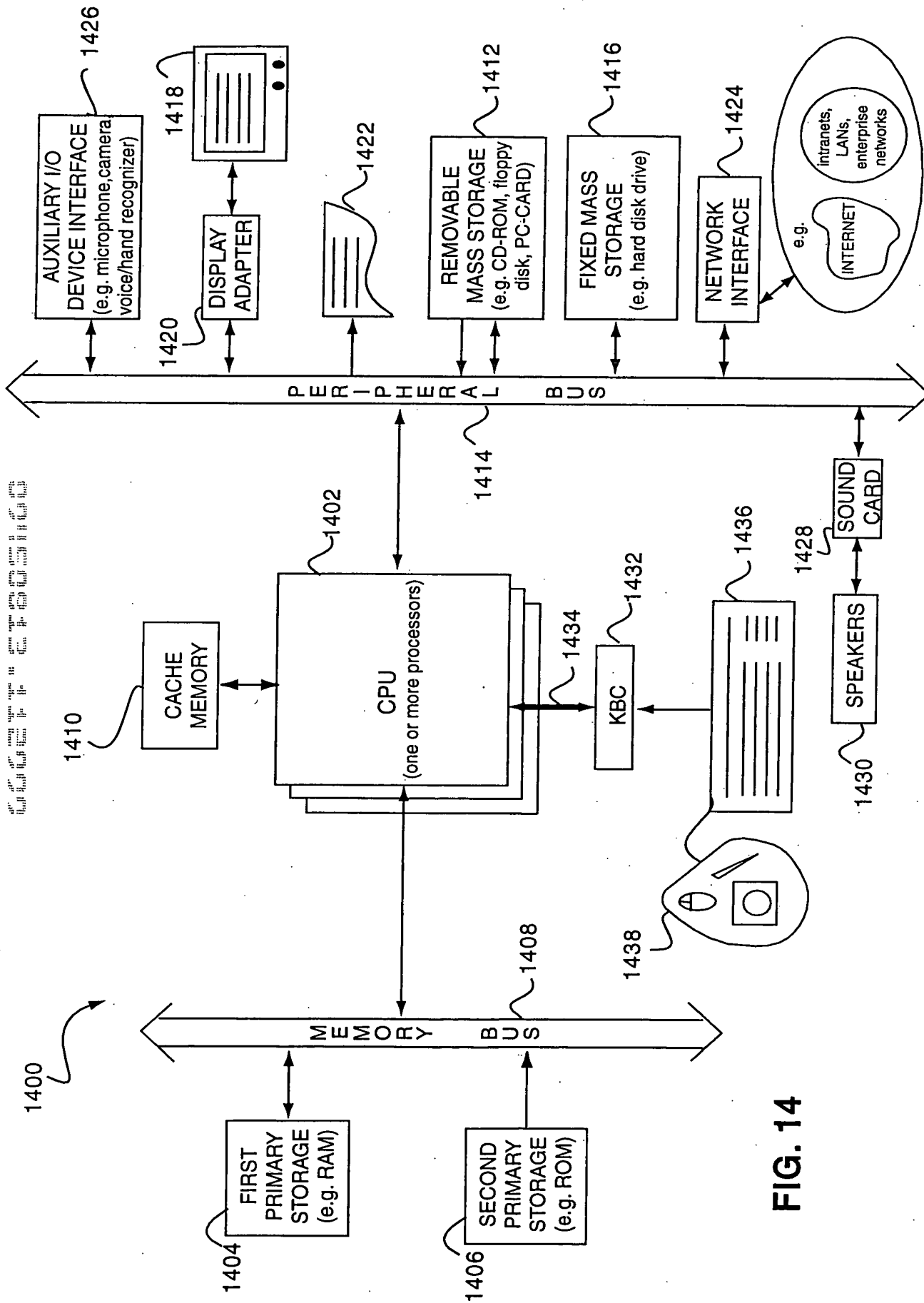


FIG. 14